

Question 1: Is it possible to change the total work done to move an object? Why or why not?

- No, less force makes you need more distance
- Yes, change angle of attack
- Yes, use a simple machine
- Yes, change the force
- Yes, change the surface

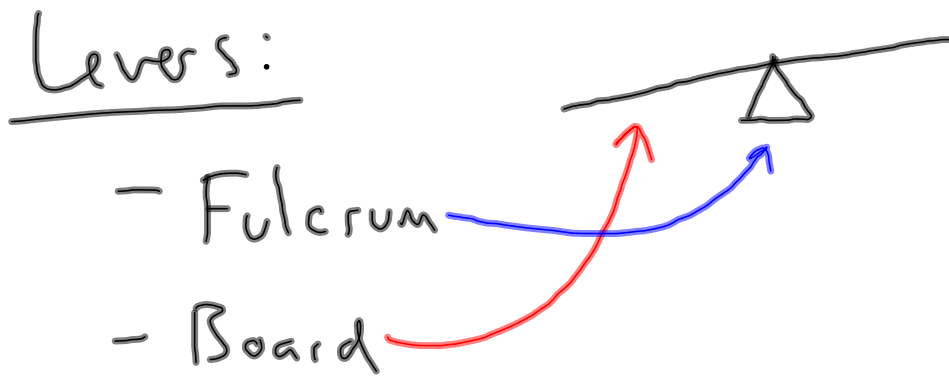
Answer: No, the total work will be the same. F and d change, but W_{net} is the same.

Q2: What is the point of a machine, specifically simple machines?

- Reduce the amount of force
- To make life easier
- Reduce amt. of E
- Reduce amt. of d
- Save time
- Minimize time, maximize output

Q3: What are the simple machines?

- Lever
- Inclined plane
- Pulley
- Screw
- Wedge
- wheel/axle



From Activity:

1. As d_e increased, F_e should have decreased
2. Inverse relationship bet. F_e and d_e

$$W = Fd$$

$$F = \frac{W}{d}$$

4. Should have been similar
5. should have increased

Mechanical Advantage (MA):

- Ideal MA:

- MA in an ideal world

- To calculate:

$$IMA = \frac{d_e}{d_r}$$

you to machine
effort distance
resistance distance
machine to object

- Actual MA:

- MA in the real world

- To calculate:

$$AMA = \frac{F_r}{F_e}$$

(machine's F on obj.)
resistance force
effort force
(your F on machine)